

Supplemental Response to Comments Document

Regarding

The Environmental Protection Agency's 1997 Filtration Avoidance Determination Mid-Course Review for the Catskill/Delaware Water Supply Watershed

September 2000

On May 31, 2000, EPA released its *Filtration Avoidance Determination Mid-Course Review for the Catskill/Delaware Water Supply Watershed*. Both EPA's Filtration Avoidance Determination (FAD) and the 1997 New York City Watershed Memorandum of Agreement (MOA) required this review, which evaluated the City's compliance with the terms and conditions of the FAD. The review included a number of corrective actions for specific FAD tasks that the City must implement, as well as recommended program enhancements intended to increase the prospects that the City will qualify for long-term filtration avoidance.

As part of the review process, from December 1999 through March 2000, EPA held ten informal meetings with interested watershed groups as well as three public information meetings to elicit comments from watershed stakeholders. Stakeholders were encouraged to provide information that would assist EPA in assessing the New York City Department of Environmental Protection's (NYCDEP's) compliance with terms and conditions of the FAD. In addition to the feedback provided at these meetings, EPA received 27 comment letters during the course of its review.

EPA appreciates the many invaluable comments that it received during the FAD mid-course review; most of this input is reflected throughout the report. A number of comments were directed at significant watershed protection issues beyond the scope of the FAD. As promised in the *FAD Mid-Course Review Report*, EPA has developed this *Response to Comments* to ensure that comments not directly relating to the FAD are also adequately addressed. If a comment was not addressed in the *FAD Mid-Course Review Report*, a full response is included here. If a comment was addressed in the *FAD Mid-Course Review Report* but requires further clarification, that clarification is provided below. Comments addressed in the *FAD Mid-Course Review Report* are not addressed again in this document. Generally, EPA has paraphrased comments and grouped together comments on a similar topic.

EPA's *FAD Mid-Course Review Report* provides guidance and direction for the continuing improvement of City's watershed protection program. Over the next few months, EPA and the City intend to meet to go over the recommendations made in the *FAD Mid-Course Review Report* point by point. It is our objective that the outcome of these discussions is an "action plan" which lays out how and when each of these recommendations will be addressed. We anticipate and expect that continued stakeholder involvement will be part of this evolutionary process.

General Comments

Comment 1: The City should be required to continue the dual track approach (i.e., filtration plant design concurrent with the FAD) for the Catskill/Delaware System.

Comment 2: Continuation of filtration plant design (dual track) is a significant financial resource burden. If the City requests relief from the dual track approach, EPA should approve it. This would free up resources for implementation of additional or enhanced watershed protection programs.

EPA Response:

Please refer to Chapter XIV (Catskill/Delaware Water Supply System Filtration Plant) in the *Mid-Course Review Report* for a response to comments on the dual track approach. EPA notes that the FAD allows the City, prior to December 31, 2000, to request relief from the requirement to complete the final Environmental Impact Statement and the initiation of final design work of a full scale filtration plant. In accordance with FAD Task 203c-1, the decision to provide relief is based on the City demonstrating that it is in “substantial compliance with the terms of [the FAD],” and that it is “providing adequate protection of its Catskill and Delaware watersheds so as to render unnecessary the initiation of final design work...” The City has not yet requested such relief.

Comment 3: The Cross River and Croton Falls watersheds should be considered part of the Catskill/Delaware water supply system for the purposes of filtration avoidance. The water from the Cross River and Croton Falls reservoirs is periodically transferred to the Catskill/Delaware water supply system, and the City will increase its use of these water transfer points in the future.

EPA Response:

Under EPA’s FAD, Cross River and Croton Falls Reservoir watersheds are not considered part of the Catskill/Delaware system. The Cross River and Croton Falls Reservoirs are part of the City’s Croton water supply system, which, pursuant to the Consent Decree entered in United States v. City of New York, must meet all filtration treatment requirement no later than March 2007. (Please refer to the footnote on the first page of the Key Findings and Recommendations section of the *FAD Mid-Course Review Report* for a complete response to this comment.) However, EPA agrees that a heightened level of protection is warranted at these two reservoir basins. In response to a request by EPA, the City has agreed to develop a non-point source pollution reduction strategy which will encompass the Cross River and Croton Falls watersheds.

Comment 4: The New York State Department of Environmental Conservation should approve NYCDEP’s proposed alum pilot study in the New Croton Reservoir.

EPA Response:

On February 9, 1999, NYCDEP submitted a SPDES permit application to the New York State

Department of Environmental Conservation (NYSDEC) to conduct a pilot study for the continuous addition of alum at the Muscoot dam. On April 27, 2000, NYSDEC formally denied the permit for failure to meet the narrative water quality standard for settleable solids. NYSDEC stated that the proposed activity would have resulted in the deposition of an environmentally harmful quantity of accumulated particulate on the bed of the reservoir.

Comment 5: EPA should provide guidance on how the City can achieve long-term filtration avoidance. It should create a framework for reviewing watershed protection progress and articulate what will be recommended or required in the coming years to ensure the long-term success of the City's filtration avoidance program.

EPA Response:

EPA structured its entire *Mid-Course Review Report* to address this very issue. As we state in the Key Findings and Recommendations section of the report, "this review offers a clear picture of what EPA considers necessary to implement an effective water supply protection program in the New York City watershed. In short this review will help set the stage for a future FAD."

Comment 6: The EPA/NYSDEC Performance Partnership Agreement should be subject to more stakeholder discussion/input and should be a principal arena for decision making on the performance of watershed/water supply programs statewide.

EPA Response:

The Performance Partnership Agreement (PPA) with NYSDEC identifies activities conducted through "base" programs and geographic-specific initiatives, some of which are in the New York City watershed. In response to the request for increased public participation in the PPA process, in 1999, EPA and NYSDEC held quarterly meetings with stakeholders throughout the State to obtain input.

Comment 7: Sustainable economic development west-of-Hudson should be pursued with greater vigor.

EPA Response:

EPA agrees that sustainable economic development is important in the west-of-Hudson watershed and is a very important component to a successful watershed protection program. The stronger a community is, the more aware and active it can be in protecting its own natural resources. Building stronger communities includes efforts to maintain farms and forested land as economically sustainable, preferred land uses. To that end, through the FAD, EPA requires that NYCDEP implement the Watershed Agricultural Program, and the Watershed MOA sets aside funds for the Forestry Program. In addition, the Watershed MOA partnership programs, specifically the Catskill Fund for the Future, can be used to promote sustainable economic

development. EPA supports efforts by NYCDEP, the Catskill Watershed Corporation and other watershed stakeholders to pursue sustainable, environmentally friendly, economic development throughout the watershed.

Comment 8: Establish a science advisory process (e.g., an independent, standing Science Advisory Panel or Committee) to provide objective advice on issues of science and technology and to flag research needs.

EPA Response:

The MOA created the Technical Advisory Committee (TAC) to provide the type of support requested in the above comment. The TAC was put to the test when charged by the MOA Watershed Protection and Partnership Council to evaluate the relationship of slope and septic system failure in the watershed. EPA believes that the TAC handled this issue admirably, confirming its usefulness as an integral part of the MOA. However, we agree that a science advisory process not directed by the WPPC does have merits. In fact, EPA has often used “non-interested” science advisory panels to evaluate complex watershed issues. For example, in 1992, an advisory panel was commissioned to evaluate the potential for New York City’s water supply to be granted non-filtration status; many of the panel’s recommendations were incorporated into subsequent FADs. This past year, EPA utilized outside professionals to “peer review” the work product of the TAC. More recently, EPA has been working with the Cooperative Extensions (Cornell and Rutgers) to provide quick access to experts who could give technical opinions on watershed issues on an as-needed basis. EPA will continue to use these and other resources to provide objective science advice and support on New York City watershed protection issues.

Comment 9: The composition of the Watershed Protection and Partnership Council should be expanded to provide further representation to New York City water users.

EPA Response:

The Watershed Protection and Partnership Committee (WPPC), a committee formed over three years ago with the signing the MOA, has a membership defined in the MOA and any change would require a change to the MOA itself. There are a number of “outside” stakeholders who have shown tremendous, unflagging interest in New York City watershed issues since the MOA was signed. EPA agrees that after three years, discussion on WPPC membership by the Committee is warranted.

Comment 10: Development pressure east-of-Hudson could have negative impacts on watershed protection efforts west-of-Hudson.

EPA Response:

EPA agrees that the negative impacts of development in West Branch, Boyd’s Corner and Kensico watersheds could put filtration avoidance at risk, regardless of the watershed protection efforts made west-of-Hudson. EPA has addressed this concern and made a number of

recommendations in several places in the *FAD Mid-Course Review Report*: Chapter III (Land Acquisition and Stewardship), Chapter VI (Non-Point Source Control Programs) -- where EPA has asked the City to develop a detailed strategy to address non-point sources of pollution in the Catskill/Delaware basins located east-of-Hudson, VI.E (Public Education and Outreach) and XII (New York City's Watershed Rules and Regulations and Project Review).

Land Acquisition - General

Comment: Land acquisition has lagged considerably in the Croton watershed.

EPA Response:

EPA agrees that acquisition has lagged in the Croton watershed. EPA believes that this is in part due to the fact that the acquisition program was already up and running in the Catskill/Delaware watershed at the time the MOA was signed. In addition, substantial coordination between the City and NYSDEC was required since both of these entities are funding land acquisition in the Croton watershed. The recent acquisitions of over 300 acres in Yorktown suggest that the pace is picking up in the east-of-Hudson acquisition program.

Kensico Reservoir Protection

Comment: The proposed Route 120/22 road expansion project has growth-inducing potential and poses grave risk to the integrity of the Kensico Reservoir. EPA should continue to express concern over this project.

EPA Response:

Since the project will be located adjacent to the highly sensitive Kensico Reservoir, EPA has voiced concern, both in writing and in City Hall testimony, strongly recommending that the New York State Department of Transportation (NYSDOT) minimize the scope of the project as much as possible. Based on NYSDOT's March 7th public information session, it appears that NYSDOT is listening to watershed stakeholders and is substantially reducing the project's footprint. EPA continues to advocate a "minimal impact" project. In a June 12, 2000 letter to NYSDOT, EPA stated its appreciation to the Department on its efforts thus far and requested that the Department continue to look for ways to reduce the impact of the project (including "low-impact alternative" measures suggested by Natural Resources Defense Council and 20 other environmental groups in their Low Impact Alternative Plan.) EPA will continue to be watchful and vocal on this issue.

Non-Point Source Control

Comment: NYSDEC and NYCDEP should reconvene the Pesticide/Fertilizer Workgroup Study required under the Watershed MOA.

EPA Response:

The Pesticide/Fertilizer workgroup distributed its draft final report to the MOA Watershed Protection and Partnership Council on February 9, 2000 and requested comments within 30 days. EPA supports the implementation of the recommendations contained in the report and has funded the East-of Hudson Pesticide Use Study with Safe Drinking Water Act funds. EPA suggests that NYSDEC finalize the workgroup report. Shortly, EPA will begin to explore additional opportunities for implementing the workgroup's recommendations with involved agencies.

Total Maximum Daily Loads (TMDLs)

Comment: NYSDEC's Phase II TMDLs do not satisfy Clean Water Act requirements and are not adequate to protect the water supply. The proposed 20 ug/l Phosphorus guidance value is not acceptable.

EPA Response:

A discussion and evaluation of the TMDL Program is in Chapter XI (Total Maximum Daily Load Program) of the *FAD Mid-Course Review Report*. EPA notes that NYSDEC recently submitted (June 29, 2000) the final Phase II phosphorus TMDLs for the New York City water supply watershed (Croton and Cat/Del systems) to EPA for approval. This submittal includes a 15 ug/l phosphorus guidance value as a site-specific interpretation of the State's narrative standard to protect the City's source water reservoirs. EPA will shortly complete its evaluation of the submittal and, pursuant to the Clean Water Act, will either accept or reject the State's TMDLs.

Wastewater Treatment

Comment 1: The City is not advocating sound sewer projects in Westchester and Putnam counties. Extensive sewerage throughout the counties is not necessary - sewer projects should only be ordered by urgency.

EPA Response:

Westchester and Putnam Counties are required to develop and implement watershed protection plans (the Croton Plan) to address water quality concerns pursuant to the Watershed MOA. EPA expects the plans will establish appropriate centralized (sewerage) and de-centralized (septics) strategies to address those water quality concerns, in accordance with local sanitary codes. In addition, EPA has requested the City to develop a strategy to address non-point source pollution in the east-of-Hudson portion of the Catskill/Delaware system. This should provide an additional mechanism to prioritize sewerage/septic concerns.

Comment 2: The City should be required to perform extra monitoring of dual-sand filtration systems to ensure their effectiveness.

EPA Response:

As noted in EPA's 1998 approval letter on equivalency, NYCDEP has agreed to perform long-term, pathogen monitoring at a number of to-be-selected wastewater treatment plant (WWTP) facilities that utilize microfiltration and dual-sand filtration.

Comment 3: There are insufficient funds in the New Sewage Treatment Infrastructure Program.

EPA Response:

The City provided \$75 million under the Watershed MOA to fund the New Sewage Treatment Infrastructure Program (NSTIP). The purpose of this program is to "construct and install WWTPs or community septic systems, or to create and fund septic districts in west-of-Hudson villages and hamlets that may be experiencing water quality problems due to failing septic systems in close proximity to streams and other water courses, or where such failures are likely to occur in the future." EPA is very concerned with the potential impact of failing septic systems in the watershed and has required the City, through the FAD, to perform certain activities to address failing septs. Although not a FAD-mandated program, the NSTIP does partially address FAD goals. EPA's critique of the City's program is found in Chapter VII (Septic System Program). If funds in the NSTIP are not sufficient to address failing septic systems, EPA expects the City to address these problems through a new program or an expansion of the Septic System Rehabilitation and Replacement Program.

New York City's Watershed Rules and Regulations

Comment 1: Septic systems should not to be sited on slopes greater than 15%.

EPA Response:

EPA addresses this issue in Chapter XII.E (New York City's Watershed Rules and Regulations and Project Review - Other Concerns Regarding Regulated Activities under the WR&R) in the *FAD Mid-Course Review Report*. We note that in August 1998, the New York State Department of Health (NYSDOH) rescinded waivers to Putnam, Westchester and Dutchess Counties which had allowed septic systems to be installed on slopes up to 20%. In addition, in May 2000, the New York State Supreme Court ruled that septic systems could not be installed on slopes up to 20% that had been modified to meet the 15% standard set forth in 10 NYCRR part 75-A.4(a)(1).

Comment 2: There is no technical justification for NYSDOH's 60-day travel time boundary condition. The boundary condition must be re-evaluated, supported by sound technical research.

EPA Response:

The New York City Watershed Rules and Regulations include restrictions for new and existing

wastewater treatment plants within a 60 day travel time to intakes to the City's water supply distribution system. NYSDOH is aware of the concern expressed in this comment. It was brought to its attention by a number of stakeholders and was also included as an issue in the National Research Council report on the New York City watershed (1999). EPA fully supports further research on pathogen fate and transport, and the 60-day travel time boundary condition.

Comment 3: The New York State Department of Transportation conducts practices and proposes projects that threaten the watershed or induce development.

EPA Response:

Pursuant to Executive Order No. 51, the New York State Department of Transportation (NYSDOT) is required to comply with substantive requirements of the Watershed Rules & Regulations. A Memorandum of Understanding between NYSDOT and NYCDEP, signed on March 8, 1999, implements the intent of the Executive Order by establishing how the Watershed Rules and Regulations will apply to NYSDOT. In addition, NYSDOT is required to comply with the State Environmental Quality Review Act. EPA believes that adherence to these "control" mechanisms, which required significant input from NYCDEP, other regulatory agencies and the public, should minimize the impacts of all activities and proposed NYSDOT projects in the watershed. We believe that in the past year, NYSDOT has become much more sensitive to watershed issues.

Comment 4: A methodology for determining effectiveness of the New York City Watershed Rules and Regulations is needed.

EPA Response:

EPA's *FAD Mid-Course Review Report* was a first step towards providing a science-based "template" for evaluating the effectiveness of the New York City Watershed Rules and Regulations. As we have explained in the *FAD Mid-Course Review Report*, the effectiveness of the Rules and Regulations will ultimately be determined programmatically and through water quality monitoring and modeling. Chapter XII (New York City's Watershed Rules and Regulations and Project Review) examines the regulations from a programmatic standpoint. Modeling and monitoring are discussed in Chapters X and XIII, respectively. We also note that there will be a formal review of the implementation of the New York City Watershed Rules and Regulations by the Executive Committee of the Watershed Protection and Partnership Council. The MOA requires that this review commence on the 5th anniversary of the signing of the MOA.

Comment 5: NYCDEP should take action to identify and register non-complying activities (Watershed Rules and Regulations Section 18-27(b)).

EPA Response:

It is EPA's understanding that NYCDEP as well as the counties have conducted significant outreach to business owners on this issue. EPA is interested in further discussions with the City and upstate counties as to what further action should be initiated to voluntarily register non-complying activities in the watershed prior to May 2002.

Comment 6: The City and EPA should lend support to the development of a pilot program in Delaware County for a community stormwater plan consistent with Sections 18-81 and 18-83 of the New York City Watershed Rules and Regulations.

EPA Response:

Section 18-81 of the New York City Watershed Rules and Regulations specifically allows for the development of local government stormwater protection plans. These plans, approvable by NYCDEP, would allow a local government to undertake all or some aspects of watershed protection as set forth in Section 18-39 of the regulations. If requested by Delaware County or the City, EPA would aid in the development process.

Comment 7: The permitting process for small projects that is required under the New York City Watershed Rules and Regulations is far too protracted and adversarial. A cooperative approach, using project teams, should be used in developing projects in Delaware County.

EPA Response:

EPA has suggested ways to address the permitting process issue in Chapter VI.E (Public Education and Outreach) and Chapter XII.A (New York City's Watershed Rules and Regulations and Project Review - Stormwater Pollution and Prevention Plans and Impervious Surfaces) of the *FAD Mid-Course Review Report*. While we appreciate and strongly support a cooperative approach to addressing watershed problems, we are skeptical that the formation of "project teams" would streamline the process.